



Sunbather, Inc
2661 Gravenstein Hwy
S.
Suite 108
Sebastopol, CA 95472
(707) 703-1313 Phone
(707) 824-9170 Fax

February 27, 2008

Mr. Rob Hudler
California Energy Commission
1516 Ninth Street
Sacramento, CA 95814

Dear Rob,

To begin, I'd like to apologize for not communicating to you earlier, unfortunately it was only recently brought to our attention the Title 24, Sub Chapter 2, section 114 paragraph that pertained to solar heating for swimming pools. This letter is designed to provide you with detail that will hopefully influence you to amend the paragraph in question. , resulting in a more energy efficient alternative for Californian pool owners.

Please let me start and provide you with some background information on the company, Sunbather. Sunbather started in Australia during the early 1970s and pioneered the development of thermal solar for swimming pools. Today solar is the preferred method of heating and Australia has the highest take up solar heated pools in the world. In the main cities 60-80% of all swimming pools are solar heated.

In the beginning, Sunbather, like everyone else, chose to use the existing filtration system as a means to direct cold pool water to the solar collectors and return warm water to the swimming pool. After years of trial and error the pool industry moved from using the filtration system to installing separate suction and return pipework for solar into the wall of the pool. Even though this was more expensive for the pool builders at the time of construction, the benefits it offered the pool owner were well understood and widely accepted.

The benefits of installing separate solar pipework:

- a. The thermostatically controlled solar runs independently from all other pool equipment, which is time clock controlled. Consumers were then able to run their filtration systems "Off Peak" and set the hours of running to satisfy the filtration load only.

- b. Less energy is used to run a small on demand independent circulator pump for the solar than to set a larger filtration pump running during all day during solar collection hours by time clock, regardless if solar is required or not.
- c. The solar systems became more efficient and cost effective over time as they did not have to be designed to cope with varying pressure and flow conditions of the filtration system during the course of the day. Clogged strainers and filters, automatic pool cleaning systems and motorized valves diverting water to rooftop solar systems all vary the pressure and flow characteristics of a filtration system from hour to hour. A solar system with separate flow and return lines to the pool is commissioned once for optimal flow and thermal performance and should never need further attention.
- d. Servicing of solar heating systems is simplified when they are totally separate from the filtration system. A break in the solar system does not shut down the filter system and vice versa. Filtration suppliers cannot blame solar installers for problems and vice versa.
- e. The pool owner can feel the warmer water returning to the pool through its dedicated outlet whereas with the filtration driven system the solar return water is often mixed with so much bypass water that the pool owner cannot easily monitor the systems operation or contribution.

Today, in Australia, the thermal solar market for swimming pools is very mature. Solar has grown to become the preferred system of heating without government rebates or subsidies. Important factors in its success have been its simplicity of operation and cost effectiveness. Eight out of every ten new pools are built with solar. This mature market has demanded innovation and continual development. Pool Builders now install dedicated suction and return lines as solar provision into all pools even if the consumer has not requested solar.

Sunbather opened in Sebastopol, California in 2005 and has 300+ customers utilizing this method of installing dedicated suction and return lines. Both Pool Builders and consumers are embracing this efficient way to providing solar for the swimming pool.

Sunbather would like the CEC to consider amending Section 114 to read ***At least 36 inches of pipe shall be installed between the filter and the heater or dedicated suction and return lines or built-in or built-up connections to allow for the future addition of solar heating equipment.***

In summary, Sunbather has learnt a great deal over the past thirty (30) years and with the mature Australian market, demand has driven development and innovation. The sole purpose of bringing this to the attention of the CEC is to assist in providing a more flexible solution for pool owners and pool builders in the state of California, which will lead to a more rapid uptake of solar pool heating systems.

Sincerely yours,

A handwritten signature in dark ink, appearing to read "J. Haley". The signature is fluid and cursive, with the first letter "J" being large and prominent.

John Haley
President & CEO
Sunbather, Inc.